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Dear Sir/Madam,

Kempsey Shire Council Submission to the 2021 Regional Telecommunications Review

Thank you for the opportunity to make a submission on this important topic. Our comments are grouped into the Key Issues addresses by the review, and focus on points specific to the local context of the Kempsey Shire.

Key Issue - Adequacy

Changing Demand

1. What telecommunications services are required in regional Australia to meet current and future needs? Are there any things regional communities and businesses need to do, but can't, on their existing services?
 - Online commercial transactions are a major economic driver utilised not just in Regional Australia but across the world. This impacts a businesses ability to provide what is considered a basic service in areas where there is currently poor or no coverage. Gladstone and Smithtown are two such areas that have mobile phone reception issues with patches of the towns constantly dropping out – this is largely noticed by some of the business community that use mobile networks for their Eftpos machines and must walk around their shop or outside for a transaction to go through.
 - Network coverage is largely only available in rural areas west of Kempsey in the town centres. There is no coverage or service that drops in and out elsewhere across the Shire west of Kempsey. East of Kempsey, the more developed area of the Shire there are also areas of patchy to no coverage.
 - Electronic exchange of services, including information and knowledge are also fast becoming a pre-requisite skill for participation in Australia's society. Without access to cost effective and reliable telecommunication, Regional residents are disadvantaged. They have less access to simple processes such as searching for a job, enhancing their education and socialising.

2. What changes in demand, barriers or challenges need to be addressed when it comes to telecommunications services in regional, rural and remote Australia?

- Cost and affordability remain concerns for households and community organisations.
- Our SEIFA Index of Disadvantage in 2016 was 888, the sixth lowest score in NSW. This means parts of our community are vulnerable to minor cost-of-living increases and need affordable telecommunication options to take full advantage of the independence and equality offered by such technologies.
- Sky Muster is perceived by many as being a huge expense. In the areas it is needed in the Kempsey Shire, there are residents and businesses that ask Council to improve the fixed-line and wireless services. The cost of this is a barrier to Council as well as there not being the density of people for it to be viable in some less populated places.
- Our community's median age is 47 years and continues to increase. Council is therefore also actively representing the interests of an older generation with challenges related to accessing consistent communications technology in our region.
- During peak holiday periods the additional demand sees areas across the Shire such as Crescent Head and South West Rocks residents noticing a slowing in their broadband connection and in their mobile connection, with service cutting out completely at times leaving them with an SOS option only.
- In the current climate there is significant development pressure on areas along the north coast as a result of people relocating from cities (and working from home) into areas that do not have sufficient NBN or other telecommunications connections which is putting pressure on residents and businesses connection.

3. How have the Government's policies and programs affected telecommunications service outcomes in regional, rural and remote Australia? How can these be improved?

- The cost to upgrade areas that Kempsey Shire and NBN have outlined as having broadband issues, including Smithtown, Gladstone, Frederickton, Stuarts Point and South West Rocks, is likely considerable. Financial assistance from the Federal government to upgrade these areas is requested.
- Council believe more education and promotion from Government is needed to get the right support for Regional residents and businesses that are having issues with their connection. It would be beneficial to widely support and promote a service such as the Regional Tech Hub that works without bias and looks for the best solution to the end user's problem. Too many people talk to providers whose first commercial interest is to keep them as a paying customer, not necessarily advise them of their best connection solutions.
- Is there potential for the Federal Government to provide rebates or discounts for users that live regionally to set up and maintain Sky Muster?
- A Government program around education for the timeframe of a 5G rollout, and information regarding whether the switch from 3G to 4G when 5G comes will have any impact on connection to those that currently use 3G or to coverage deficits, could go a long way to improving residents understanding. If there are going to be

impacts, a map of the communities that currently only have access to 3G would be desirable in order to best inform residents of this change.

- A program to create a centralised network coverage checker would allow Council and/or residents to make informed decisions by providing a map the areas/communities showing best coverage, rather than relying on the individual providers.
- The [Universal Service Guarantee \(USG\)](#) requires NBN to provide a minimum of 25/5Mbps to all Australian's. Whilst acknowledging that this is an amazing achievement and a significant improvement on where we were prior to the NBN it's simply not enough to support emerging industries, agri-business and microbusiness. Within the Kempsey Shire there are vast areas of industrial land at places like South Kempsey that barely achieve the minimum. The Slim Dusty Centre is a prime example; despite being adjacent to the Pacific Motorway it is difficult to download even an e-mail attachment.

Service reliability

4. How do service reliability issues impact on regional communities and businesses? How do outages, including in natural disasters, impact on communities and businesses?

- The Kempsey Shire has a population of about 30,000 persons in an area of 3,381 square kilometres, with an overall population density of just 0.09 persons per hectare. As a result, we have a relatively widespread land area vs population density which requires an extensive telecommunications network which currently has large areas of poor or no communication coverage.
- Businesses that do not have sufficient connection have issues with payments going through on Eftpos, incoming and outgoing communications and software systems cutting out, which impacts overall productivity and results in lost revenue.
- About 14% of workers, or about 1,300 persons, commute to the shire from other LGAs, ranging between Lake Macquarie and Clarence Valley. With current network black spots our residents may be vulnerable in emergencies. A more resilient broadband and mobile network in the area would support public safety, day-to-day business, social contact and access to essential services like health and education.
- Service reliability and coverage are vital during emergencies to keep communities informed and to support the coordination of response efforts. During the most recent bushfires and floods in the Kempsey Shire phone reception was considered a large hindrance when getting the right communication to residents in the disaster affected areas.
- Whilst most residents in the Shire acknowledge that during a natural disaster, it is possible, if not likely, that telecommunications will be disrupted, many are unaware of the extent of that possible disruption. Community feedback suggests surprise that landlines or mobile internet services would be affected, believing that some services are exempt from disruptions due to their perceived importance during natural disasters.
- Outages for Kempsey Shire during Natural Disasters importantly can mean that calls to 000 are unable to be placed, ATM machines and EFTPOS machines don't work, which means cash becomes the only option for buying goods, often without notice.

- Timely and accurate information during a natural disaster is key and most residents understand that the relevant Apps, websites and social media sites are the most accessible way to find out about what is happening in their general vicinity. The impact in remote regional areas with poor or no coverage is therefore felt the hardest. Where verbal means of communication are required this places a large burden on emergency authorities, at a time when resources are limited, and places residences at risk of not being communicated with.
 - The Kempsey Shire operates a number of it's critical assets via SCADA systems, including water and sewage treatment plants and pumping infrastructure. This model is being expanded across the network of these assets. This allows for remote monitoring of system operations and performance and system control as required. The need for reliable connection via these systems is heightened during emergency events when it may not be safe for staff to access the site directly. Not having visibility of these systems via telemetry places residents health at risk. Similarly river and rain gauges that report critical information during weather events transmit information via telecommunications infrastructure. Loss of connection results in loss of visibility of a given site, putting the community at significant risk during flooding events in particular as adequate warning may not able to be provided or accurately forecast.
 - During moderate and major flood events between 2011 and 2013 Optus coverage was frequently interrupted across the Shire, except for Crescent Head, due to failure of their Yarrahapinni radio site. One of these outages, during a major flood, extended for 3 days. This is a difficult problem to resolve as the site has generator backup, however road access is often blocked during these events, and their generator eventually exhausts its onsite fuel supply. Optus have confirmed that all mobile sites in the Shire, except Seven Oaks and Crescent Head, still rely on this single point of failure.
5. How might such impacts be addressed to ensure greater reliability? How can the network resilience be addressed in regional areas?
- Council supports and encourages strengthened and upgraded connectivity to deliver improved land area coverage and resilience to the network across the Shire.
 - Coverage continuity along the Pacific Highway following the Kempsey Shire is a particular concern for Council. As a main transport route on Australia's central east coast and as an important emergency services route during emergencies for the Shire, it is important the Pacific Highway has reliable network reception. Council would encourage additional towers to enhance coverage and improve service, enabling greater service and safety for those living and travelling along the route. The fact that the main road corridor along the east coast has intermittent service in this day and age is quite damning.
 - Additional funding to upgrade areas of poor connection would see the biggest potential impact for network resilience.
 - Better education on what is available to residents across the different providers could allow a choice for greater reliability.
 - Promotion of and connection with better support networks such as the Regional Tech Hub would help address residents issues.

- Resiliency of infrastructure is critical, and can be enhanced through higher levels of maintenance and inspection, enhanced clear zones around critical infrastructure to reduce the likelihood of impact by natural disaster events, and improved telemetry for remote visibility of impacted assets.
- The [STAND](#) program should be continued and expanded, it is critical that we increase resilience in Telecommunications networks in Rural and Regional areas.

COVID-19

6. How did the use of digital services change for regional consumers and businesses during the response to the COVID-19 pandemic? What insights for future service delivery does this provide?

- As a result of the COVID 19 Pandemic there has been a large growth in demand for data-driven services.
- The big shift to working and schooling from home for prolonged periods of time has put a lot of pressure on the need for a reliable connection. Those that cannot access this ultimately suffer in productivity, educational advancement, and revenue for business owners.
- More online sales during the pandemic have put further strain on the telecommunication connections, which need to be the best it can be so that customers are receiving the best service.
- Additional use of online platforms such as Teams and Zoom has placed additional importance on good broadband connection. For many, without this form of communication productivity and relationship connections are lost.
- Whilst a pandemic can never truly be prepared for, providing a robust and resilient network consistently across the Region would ensure the problems faced by our communities in the recent crisis would not be repeated.

Indigenous Australia

7. What can be done to improve the access and affordability of telecommunications services in regional, rural and remote Indigenous communities?

- Our Aboriginal and Torres Strait Islander community comprises over 11% of total residents, about double the regional average. Consequently, we have remote Indigenous communities with unique needs which would benefit from improved levels of telecommunications access and affordability.
- Council believes bespoke and tailored education on what is available in the areas of relevance for our Aboriginal and Torres Strait Islander communities would be beneficial, especially given usage is often very different to standard requirements.
- Promotion of and easy connection to better support networks such as the Regional Tech Hub with internal training to support the unique requirements.

- Network coverage in the more remote areas is particularly sparse and additional funding would be required to upgrade areas of poor or no connection in order to provide a service that would be considered useful by the community.

Key Issue - Opportunity

Regional Development

8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?
 - Council does not have any direct comments in relation to this item. Matters that may be of associated relevance are covered in other parts of the submission.
9. What role could innovation, including new models, alternative investors or new ways of doing business, play to encourage investment in regional telecommunications infrastructure? What are the barriers?
 - Development will ideally enhance productivity and provide the opportunity for Regional areas to be more innovative across their distinctive major sectors, including agriculture, tourism, construction, health and education.
 - Investment in regional telecommunications infrastructure will provide new ways for local communicates to expand and reach their potential, allowing more seamless import and exports throughout the Region and ideally enhancing connectivity to open up businesses to others around the world.
 - Public and private investors likely depend on high speed communications. Highlighting the restrictions in a rural environment and promoting the potential new ways of doing business would likely have a positive impact on investors willingness to finance.
 - A potential barrier would be gaining the confidence of regional businesses who would have to be confident the network would be sustainable, affordable and reliable before they would likely consider expansion opportunities.

Emerging Technologies

10. To what extent will new technologies enable significant change to the delivery of telecommunications services in regional Australia over the next 5-10 years? Are there any barriers to accessing these technologies?
 - The desire would be for new technologies to continue to increase productivity, innovation, and connection for regional Australia.
 - Barriers include lack of funding and education to access these new technologies in regional Australia as well as slow roll out and current immediate network upgrade requirements.
11. How can Government better support the rapid rollout of and investment in new telecommunications solutions in regional areas?

- Additional funding to regional areas to support such telecommunications solutions roll-out. Communications support and education as part of this is important as often local residents will turn to their local Council for information and support, however the knowledge base within Councils is limited.
- Appropriate communication online and in-person – a dedicated person for each Shire would be beneficial to make sure the message is received.
- Promotion of the rollout and solutions that speaks to the end user and how they can benefit.

Maximising Outcomes

12. How can different levels of Government, the telecommunications industry and regional communities better co-ordinate their efforts to improve telecommunications in regional Australia?

- Council does not have any direct comments in relation to this item. Matters that may be of associated relevance are covered in other parts of the submission.

13. What changes to Government investment programs are required to ensure they continue to be effective in delivering improved telecommunications?

- Council does not have any direct comments in relation to this item. Matters that may be of associated relevance are covered in other parts of the submission.

Key Issue - Awareness

Education

14. How can regional consumers be better supported to identify, choose and use the best connectivity options for their circumstances, as well as to understand and use their consumer rights?

- Councils general understanding with regards to residents' awareness of their options for connectivity and consumer rights is that the knowledge is vague at best and not well understood in the community.
- There is also a clear need for more education or assistance about what can be affected and how to be better prepared for a loss of telecommunications during a natural disaster.
- Residents that have issues with their fixed-line and fixed wireless services are not aware of the Sky Muster satellite services or had a bad experience with the previous roll out of Sky Muster and the improvements that have been made with Sky Muster Plus. There needs to be a lot more education and promotion about this for the residents and businesses affected.

Public Information

15. To what extent is public information on connectivity options, including predictive coverage data and speeds, sufficient to help regional customers make informed decisions? What other information is needed?

- The most common channels for finding the information listed above would likely be via the internet or social media, both of which are reliant on connectivity in some way which puts those in poor or no coverage areas at a disadvantage.
- Specifically relating to service coverage / outages during an emergency or natural disaster, Kempsey Shire community members generally understand that natural disasters cause damage to infrastructure, services will go down and they may need other ways to access information or connect with others. A greater understanding of what can be done to prepare for a telecommunications outage in any situation would allow discussions around the practicalities of other options.

16. What other matters should the Committee consider in its review and why are they important

- A large amount of water infrastructure is used by the telecommunications carriers as a cost-effective way to erect their infrastructure. Council appreciates 'hosting' in some cases provides commercial benefits, however poor installation and maintenance increases the risk to residents and staff. Council would like the review to consider the current situation in the Kempsey Shire where telecommunication infrastructure and equipment is placed on Council reservoirs creating EME concerns and associated safety risks to staff. There are reservoirs around the Shire such as Crescent Head where Staff cannot access. Additionally, reservoirs are constructed from a range of materials and use different designs, the majority of which did not consider the future installation of telecommunication infrastructure.

I trust this information is of assistance. If you would like to discuss our submission further, please contact Council at ksc@kempsey.nsw.gov.au.

Sincerely



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KEMPSEY SHIRE COUNCIL